**Market Structures:**

**Case Assignment**

**Explain the Prisoner’s Dilemma game, the notion of dominant strategy, and the concept of Nash equilibrium and cooperation. Using these concepts, then, analyze the following duopoly game.**

**Philip Morris and R.J. Reynolds spend huge sums of money each year to advertise their tobacco products in an attempt to steal customers from each other. Suppose each year Philip Morris and R.J. Reynolds have to decide whether or not they want to spend money on advertising. If neither firm advertises, each will earn a profit of $2 million. If they both advertise, each will earn a profit of $1.5 million. If one firm advertises and the other does not, the firm that advertises will earn a profit of $2.8 million and the other firm will earn $1 million.**

* **If the two companies decide to collude to maximize profits, what will each company do? What profit will each company earn?**
* **What is the dominant strategy for each company, and what profit will each company earn if they follow those strategies?**
* **Is the solution you found in the first question a Nash equilibrium?**
* **Is the solution you found in the second question a Nash equilibrium?**

**Assignment Expectations**

**In the Case Assignment, you are expected to:**

* **Describe the purpose of the paper and provide a conclusion.**
* **Present information in a professional manner.**
* **Answer the Case Assignment questions clearly and provide necessary details.**
* **Write clearly and correctly—that is, no poor sentence structure, no spelling and grammar mistakes, and no run-on sentences.**
* **Provide citations to support your argument and place references on a separate page. (All the sources that you listed in the references section must be cited in the paper.) Use APA format to provide citations and references [**[***http://owl.english.purdue.edu/owl/resource/560/01/***](http://owl.english.purdue.edu/owl/resource/560/01/)**].**
* **Type and double-space the paper.**
* **Whenever appropriate, please use Excel to show supporting computations in an appendix, present economic information in tables, and use the data to answer follow-up questions.**